AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1-11. (Cancelled)

12. (Currently amended) A noninvasive continuous blood pressure measuring apparatus comprising:

oscillating means for generating an oscillation signal of which frequency is controlled;

an exciter responsive to said oscillation signal for inducing an exciter waveform in an artery and ~~a~~ blood in said artery of a living body;

a sensor arranged a predetermined interval apart from said exciter for receiving said induced exciter waveform transmitted through said artery from said living body and outputting detection signal;

calibration hemadynamometer means for detecting absolute values of a maximum blood pressure and a minimum blood pressure of said living body;

frequency determining means responsive to said sensor for controlling said oscillating means to successively control said frequency at different frequencies, determining one of said difference frequencies in accordance with said detection signal outputted at different frequencies, and then, controlling said oscillating means to continuously generating said oscillation signal at said one of said different frequencies;

calculating means responsive to said frequency determining means for receiving absolute values from said calibration hemadynamometer means and successively calculating and outputting an instantaneous blood pressure value from a phase relation between said oscillation signal and said detection signal at said one of said different

frequencies and said absolute values; and displaying means for displaying a continuous blood pressure variation from said instantaneous blood pressure successively outputted by said calculation means.

13. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 12, wherein said frequency determining means detects attenuations in said detection signal at different frequencies and determines said one of said difference frequencies in accordance with a minimum of said attenuations.

14. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 12, wherein said frequency determining means detects dispersions in amplitudes of said detection signal at different frequencies and determines said one of said different frequencies in accordance with a minimum of said dispersions

15. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 12, wherein said frequency determining means detects phase shifts in said detection signal at different frequencies and determines said one of said difference frequencies in accordance with a maximum of said phase shifts.

16. (Original) The noninvasive continuous blood pressure measuring apparatus as claimed in claim 12, wherein said frequency determining means detects attenuations in said detection signal at different frequencies, detects dispersions in amplitudes of said detection signal at said different frequencies, and detects phase shifts in said detection signal at said different frequencies, obtains estimation values at said different frequencies through an estimating function for estimating said attenuations, said dispersions, and said phase shifts, and determines said one of said difference frequencies in accordance with the estimation values at said different frequencies.

17-21. (Cancelled)

22. (Currently amended) A method of noninvasively measuring continuous blood pressure comprising the steps of:

(a) generating an oscillation signal of which frequency is controlled;

(b) providing an exciter responsive to said oscillation signal inducing an exciter waveform in an artery and ~~a~~ blood in said artery of a living body;

(c) providing a sensor arranged a predetermined interval apart from said exciter for receiving said induced exciter waveform transmitted through said artery from said living body and outputting a detection signal;

(d) detecting absolute values of a maximum blood pressure and a minimum blood pressure of said living body;

(e) controlling said oscillation signal to successively control said frequency at different frequencies;

(f) determining one of said difference frequencies in accordance with said detection signal outputted at different frequencies;

(g) continuously generating said oscillation signal at said one of said different frequencies;

(h) receiving absolute values and successively calculating and outputting an instantaneous blood pressure value from a phase relation between said oscillation signal and said detection signal at said one of said different frequencies and said absolute values; and

(i) displaying a continuous blood pressure variation from said instantaneous blood pressure successively outputted.

23. (Original) The method as claimed in claim 22, further comprising the step of:

detecting attenuations in said detection signal at different frequencies, wherein in said step (f), said one of said difference frequencies is determined in accordance with a minimum of said attenuations.

24. (Original) The method as claimed in claim 22, further comprising the step of:

detecting dispersions in amplitudes of said detection signal at different frequencies, wherein in said step (f) said one of said difference frequencies is determined in accordance with a minimum of said dispersions.

25. (Original) The method as claimed in claim 22, further comprising the step of:

detecting phase shifts in said detection signal at different frequencies, wherein in said step (f) said one of said difference frequencies is determined in accordance with a maximum of said phase shifts.

26. (Original) The method as claimed in claim 22, further comprising the steps of:

detecting attenuations in said detection signal at different frequencies;

detecting dispersions in amplitudes of said detection signal at said different frequencies;

detecting phase shifts in said detection signal at said different frequencies;

obtaining estimation values at said different frequencies through an estimating function for estimating said attenuations, said dispersions, and said phase shifts; and

determining said one of said difference frequencies in accordance with the estimation values at said different frequencies.

27-31. (Cancelled)